WHAT IS CLAIMED IS:

1. A temperature compensated detector, comprising:

a first conductor carrying signals to be detected;

a second conductor carrying signals electromagnetically induced therein from said first conductor;

a detector including a rectifier for providing an output signal representative of the signal carried by said first conductor; and

a temperature compensation circuit providing a compensating bias signal to said detector, said compensating circuit being connected in a manner to provide compensating bias signals to said detector so as to prevent loading thereof.

2. The temperature compensated detector of claim 1, wherein said first conductor and said second conductor comprise a directional coupler.

3. The temperature compensated detector of claim 2, wherein said detector is coupled to a terminal of said directional coupler for sensing a forward signal carried by said first conductor, and said temperature compensation circuit is connected to a different terminal of said directional coupler.

4. The temperature compensated detector of claim 3, wherein said different terminal comprises a reverse sample port that is AC terminated to a reference impedance.

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5. The temperature compensated detector of claim 1, wherein said detector and said temperature compensation circuit each include a rectifier diode, and including corresponding circuitry for providing substantially an equal magnitude bias current to flow through each said diode.

6. The temperature compensated detector of claim 1, wherein said rectifier comprises a semiconductor diode.

7. The temperature compensated detector of Claim 1, wherein said temperature compensation circuit includes a current source for sourcing substantially a constant current between said temperature compensation circuit and said detector, a magnitude of said current being substantially independent of temperature.

8. The temperature compensated detector of Claim 7, further including a matched pair of semiconductor diodes, a first diode located in said detector and a second diode located in said temperature compensation circuit, and said current source sources current between said diodes.

9. The temperature compensated detector of Claim 8, wherein said current source is configured to provide a constant current that is independent of temperature.

10. A temperature compensated detector, comprising:

a directional coupler having an input port, an output port, a forward sample port and a reverse sample port;

a detector circuit including a rectifier, said detector circuit coupled to said forward sample port; and

a temperature compensation circuit coupled to said reverse sample port, said temperature compensation circuit providing a compensating bias to said detector circuit via said reverse sample port.

11. The temperature compensated detector of claim 10, wherein said detector circuit and said temperature compensation circuit each include a semiconductor diode of a matched diode pair, and each said diode carries substantially the same magnitude of DC bias current, and the magnitude of said bias current is independent of temperature.

12. The temperature compensated detector of claim 10, further including in combination a wireless transceiver, and wherein said temperature compensated detector is coupled between an amplifier and a load for controlling a power transmitted by said amplifier to said load.

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13. A method of providing temperature compensation to a detector, comprising the steps of:

coupling RF power to a directional coupler and therefrom to a load;

rectifying a signal provided at a forward sample port of said directional coupler to provide a DC voltage representative of the RF power; and

generating a DC bias signal that is independent of a rectifier temperature and coupling said DC bias signal to said forward sample port of the directional coupler, via a reverse sample port.

14. The method of claim 13, further including providing a matched pair of rectifier diodes, one rectifier diode coupled to said reverse port and another rectifier diode coupled to said reverse sample port.

15. The method of claim 13, further including terminating AC signals at said reverse sample port to a common circuit node.

16. A temperature compensated detector, comprising:

a four-port directional coupler having an input port, an output port, a forward sample port and a reverse sample port;

a detector circuit coupled to said forward sample port, said detector circuit including a first semiconductor diode, a filter and an output providing a voltage corresponding to a signal carried between the input port and the output port of said directional coupler; and

a temperature compensation circuit coupled to said reverse sample port, said temperature compensation circuit including a current source and a second semiconductor diode, said current source being configured to source substantially the same amount of current between said first and second semiconductor diodes as the temperature changes.

17. The temperature compensated detector of Claim 16, wherein said first and second semiconductor diodes have matched electrical characteristics.